



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,012	05/30/2000	Ming U. Chang	PD-200031	9856

7590 12/28/2004

HUGHES ELECTRONICS CORPORATION  
BLDG. R11, M.S. A19  
P.O. BOX 956  
EI SEGUNDO, CA 90245-0956

EXAMINER

CRAVER, CHARLES R

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/584,012	<b>Applicant(s)</b> CHANG ET AL.	
	<b>Examiner</b> Charles R Craver	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6-9, 14, 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Naidu et al, US Pat 5,805,983, newly cited, in view of Kao.

**Claims 1 and 7, 8 and 9, 16:** Naidu discloses a simulcast mobile wireless communication system, comprising a plurality of individual transponding nodes and a central hub such that a downlink signal processed by said central hub is processed so that it is radiated using a plurality of radiated signals with compensating time delays to the plurality of said individual transponding nodes (col 5 lines 14-59), and a plurality of mobile terminals for receiving radiated signals from each of said nodes simultaneously so that the signals are added coherently (inherent in a simulcast system, col 2 lines 35-65) and for creating a return signal to the nodes wherein the central hub processes the received signals from the nodes to compensate for path differentials (col 6 lines 29-45).

Naidu fails to disclose that the hub radiates the signals to the nodes, that is, that the connection between the hub and the nodes is wireless.

Kao discloses the utility of connecting a BSC 8 such as that taught by Schmidt to a BTS 7 using a wireless connection (col 4 line 45-col 5 line 14).

Art Unit: 2682

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Naidu in such a way, as it would overcome conventional system limitations, as suggested by Kao, col 4 lines 40-42.

**Claims 16, 4, 14:** Kao discloses transmission towers (cellular). **Claim 6:** the system of Naidu inherently excludes other users from in-phase reception if they are at a different location. **Claims 17 and 18:** Naidu in view of Kao would provide towers.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naidu in view of Kao as applied to claim 1 above, and further in view of Christian et al, US Pat 5,361,398, newly cited.

While disclosing the invention of claim 1 above, Naidu in view of Kao fails to disclose satellites, however, Christian discloses the utility of using a loop-delay measuring system like that taught by Naidu to a satellite system (col 5 lines 5-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add such a feature to Naidu in view of Kao as it would allow the use of known technologies, see Christian col 5 lines 29-42. **Regarding claim 3,** the satellite above reads a high-altitude platform.

Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naidu in view of Kao as applied to claim 8 above, and further in view of Christian.

Please see the rejection of claims 2 and 3 above.

Art Unit: 2682

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naidu in view of Kao as applied to claim 1 above, and further in view of Ibanez-Meier, of record.

While disclosing applicant's invention of claim 1 above, Naidu in view of Kao fails to disclose a balloon.

Ibanez-Meier discloses that terrestrial systems such as that taught by the combined invention of Naidu in view of Kao can also apply to a satellite system in some situations (col 1 lines 22-57), and further benefit from the use of balloons or aimlanes/airships (high altitude platforms) as well (col 3 line 66-col 4 line 40, col 6 line 66-co1 7 line 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add such a feature to Naidu in view of Kao, as Ibanez-Meier discloses that such a modification can be cost-effective at providing wide system coverage (col 2 lines 27-40, col 3 line 66-col 4 line 6).

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naidu in view of Kao as applied to claim 8 above, and further in view of Ibanez-Meier, of record.

Please see the rejection of claim 5 above.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2682

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Breeden, Harris and Osborne disclose simulcast systems.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

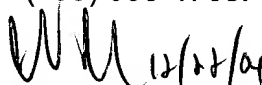
(703) 872-9306 for both formal and informal/draft communications, labeled as such.

Hand delivered responses should be brought to Crystal Plaza II, 200 20<sup>th</sup> St S, Arlington VA, first floor lobby.

Any inquiry concerning this or earlier communications from the examiner should be directed to examiner Charles Craver at (703) 305-3965.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-4700.

  
CHARLES CRAVER  
PRIMARY EXAMINER

CC

C.Craver

December 22, 2004